

Abstract

A measuring apparatus provides data relating to the shape of an input radiation wavefront, the wavefront shape being describable at a pre-determined location in an optical system. The apparatus includes an aberration device which provides an aberration to the input radiation wavefront, the shape of which is defined by a filter function that is complex valued and has non-mixed symmetry, and a detector having a radiation sensitive surface capable of detecting the intensity of incident radiation on the surface, the detector being coupled to an output device that provides a measure of the intensity of the incident radiation. The aberration device is configured to act on an input wavefront shape to produce first and second output radiation signals that are detected by the detector and in combination cause the output device to provide data indicating an extent to which the wavefront shape is non-planar.